VIODE JUKEBOX

THE NEXT GENERATION
"OPTICAL DRIVE EMULATION"

USERS MANUAL

INTRODUCTION

WODE is an acronym for WII OPTICAL DRIVE EMULATOR; this means that the WODE is a DVD WII reader emulator. As it is an emulator, no DRM protection is violated. The Wode offers alternative uses of mass digital storage in order to read the Wii software's.

The word JUKEBOX derives from those famous machines that used to be found in bars and pubs which had many vinyl records incorporated and from which anybody could listen to their own music genre.

One of the WODE-JUKEBOX function is to archive many programmes in one place permitting the user to access his own software library in very simple and swift steps through a uncomplicated LCD display or through the various offered interfaces.

It is very important to note that the maker of the WODE JUKEBOX distances itself from all illegal uses and forms of piracy which could be attempted with the WODE JUKEBOX. The WODE JUKE-BOX has not been designed to be used as a piracy tool. In fact the WODE JUKBOX 's system of-fers a "BRIDGE" between the WII and other standard devices present in the market with the fol-lowing names: HARD DISK, NET SHARE and DVD READER.
When a HARD DISK is being used in conjunction with the WODE JUKEBOX emulating original DVD's, the user must own an original copy of that game. Whoever utilizes the WODE JUKEBOX sy-stem with commercial games or softwares without owning a user's license will risk serious legal and administrative sanctions in his country of residence.

In other words, the WODE maintains the license of use of the softwares and games. The maker of the WODE JUKEBOX does not supply any backup copy of any original game. The WODE offers a legitimate method which used correctly helps to preserve and to maintain a user's copy of an original game.

USERS MANUAL

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WODE JUKEBOX

THE NEXT GENERATION
"OPTICAL DRIVE EMULATION"

Technical specifications

- Processor ARM NXP LPC3143 200 Mhz with protection AES 128Bit
- FPGA ACTEL A3P250 100 Pin
- Memory SDRAM 256Mbit (32MByte)
- Memory FLASH ROM 64Mbit (8MByte)
- LCD with back light 128x64 pixel
- Slot SD/SDHC card
- Host USB 2.0
- Power supply 5V through USB cable

Wode respects CE, RoHS and FCC certifications regarding the reliability and safety of the materials and the final user.
The WODE JUKEBOX is recommended for users 12 years old and above.
In order to use the WODE JUKEBOX it is necessary to install it inside a console. The maker of Wode JUKEBOX recommends letting the WODE JUKEBOX be installed by a professional.

What Wode can do

The WODE is a system entirely based on LINUX. It offers infinite future developments and a flexibility of use without precedent.
Installing the WODE on your console WII will enable you to use various mass memory storage media. The WODE is able to read software from a USB-pen, Hdd-USB, memory cards SecureDigital (SD/SDHC), MemoryStick, CompactFlash or XD-card, by simply connecting them individually or all together through a common HUB-Usb. The compatibility is practically Universal with every type of PC system thanks to the WODE's own system support. The Wode can support format files in FAT16/32 and NTFS for Windows, EXT3FS for Linux, HFS+ for Mac, WBFS for Homebrew.
Thanks to the flexibility of the included Linux system, the WODE JUKEBOX system can be updated easily and should be suitable for the various market standards; Every WODE user will be able to take advantage of all the new-coming features thanks to its perfect downloading capacity.

The following features are actually under development:
- Support of one Wi-Fi stick enabling the access of mass storage devices and archives shared on your PC through a Wi-Fi net or directly through the Internet.
- Transfer of an Original game Wii on a Mass storage device connected to a WODE.
- Support to the use of an external DVD-Usb reader for the reading of support-disks of backup.

The maker of the Wode thanks you for having purchased this product

YOUR WODE

1- Lcd Display

The backlit LCD display present in the front part of the WODE-Vertical Stand is the main interface of interaction with your WODE-Jukebox. Through the display you can receive information regarding the actual status of your device at every moment.

2- Joystick

The 5 directions-Joystick (up, down, right, left, center) present in the front part of the WODE-Vertical Stand permits the user to scroll through the selection of the menu links.

3- Status-LEDs

In the frontal part of the WODE-VerticalStand there are 3 status LEDs, starting from the top we have:
(Led3) – USB-power status led: this led when turned on shows the presence of power supply on the USB-Host port.
(Led2) – I/O activity status led: this led shows the activity status of the bus communication WODE-Wii.
(Led1) – Upgrading status led: this led shows the activity status only during the updating procedure of the WODE.

4- USB Host port

The USB port present in the WODE-VerticalStand allows the connection between any compatible mass storage USB 2.0 device; the connection comes in direct or by a USB-HUB, to which you can connect various peripherals at the same time.
The power supplied by the USB-Host is about 500mA, which is sufficient for the functioning of a single USB connected device; it will be necessary to use a USB-HUB with an external power unit in order to have the correct electric capacity enabling the use of more than one device.

5- Slot SD/SDHC card

The slot card present in the WODE-VerticalStand enable the use of memory cards SD/SDHC. The loading of an ISO is supported through the us of SD/SDHC cards with file system FAT16/32, WBFS, NTFS, EXT3FS, HFS+ .
You can update the firmware of the WODE through SD/SDHC card. The only file system supported for that operation is the FAT16/32.

6- USB-power cable

The USB cable at the rear part of the WODE-VerticalStand is intented to be used as a supply power for the backlight of the LCD display and for the USB Host Port.

Starting up " WODE loading..." screen

As soon as your console is turned on, you will be able to see the LCD display of the WODE "WODE JUKEBOX loading…..".

**This screen indicating " loading" is very important because it confirms that the BOOT LOADER of the WODE is working and that the peripheral is initializing.
The boot loader is a micro software that uploads the firmware of WODE or if this last is damaged it will look for an updating file to restore the firmware in the slot "SLOT SD/SDHC card".**

It is important to remember that the firmware update file can be uploaded to the WODE only through memory card SD/SDHC (not included), with the insertion in the slot of the WODE-VerticalStand. The SD/SDHC card needs a file system FAT or FAT32. The updating file has the name " update.bin".

If on the LCD screen the following "WODE JUKEBOX loading" does not appear, please refer to the section "Troubleshooting" at the end of this manual.

Discovering WODE menu:

Favorites - menu for the fast start of your favourite ISOs, up to a maximum of 8 choices.

Select Game - menu for the uploading of ISOs which are present on a mass storage device.

Flat Wode - launch of Originals DVD disks and backups.

Settings - manage the functioning settings of the WODE.

About - system informations on every software component of the WODE.

FAVORITES menu

Through the menu, you will have the possibility of setting up a maximum of 8 favourite games, for a fast and simple start up. The Favourites Games features enables the user to manually scroll down through a long list of ISOs present in the various connected devices.

The slot of "*Favorites*" can have the following status:

NAME ISO – The game is present on one of the mass connected devices.

EMPTY – No game saved in this slot, so the slot is FREE.

NOT FOUND – The saved game on this slot is not actually accessible in any device connected to a WODE.
Check that the hard disk or the mass memory storage which contains the game is connected to the WODE.

Adding a game to the menu " Favorites"

To add a file:

- enter in the menu " Favourites" moving the WODE-Joystick to the right.
- Select one of the 8 available slots and moving the WODE-Joystick to the right you'll be taken to the menu screen with all the connected devices.
- Select the device moving the WODE-Joystick to the right.
- Select the preferred file moving the WODE-Joystick to the right.

After these steps, the name of the game will appear in the list on the right.

Launching a file from the menu " Favorites"

Simply select the slot and move the WODE-Joystick to the right.

To cancel a slot:

Select the slot and press the WODE-Joystick. This operation is also needed to cancel a slot with the status " NOT FOUND".

The number near the menu line “Favourites” shows the total amount of the slots used among the available ones.

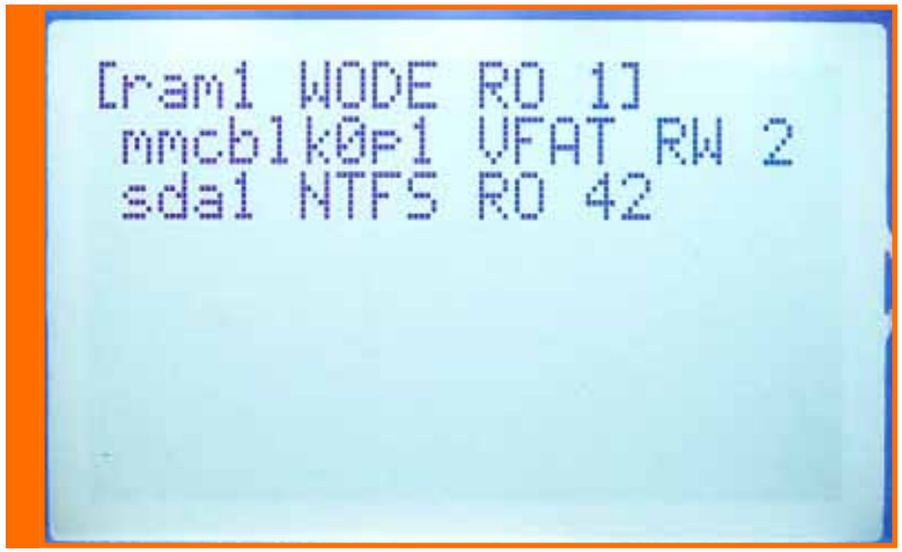
Select Game menu

Through this menu the user can surf through the multiple devices connected to the WODE and read the infinite partitions.

The menu shows the selection of 2 numbers, the first indicates the number of devices/partitions recognized by the WODE, while the second one indicates the total amount of valid ISO present on the devices.

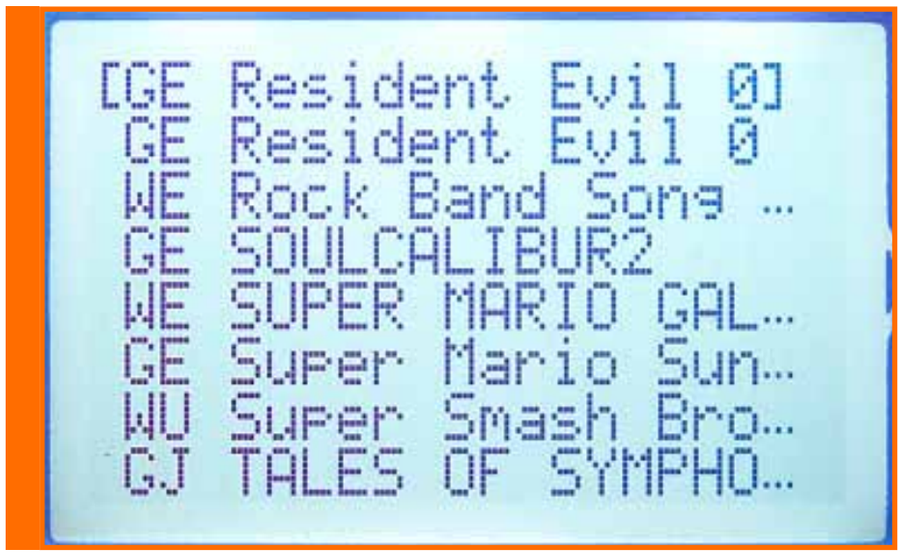
In the section" Select Game" you will see the number of devices/partitions recognized by the WODE.

(Note) The WODE is compatible with the following types of file systems: FAT, FAT32, NTFS, WBFS(Wii Backup File System) , EXT3FS, HFS+. In order that your ISO is recognized correctly, they will need to be fixed in a folder with name "ISO" in the root of your mass archive ("x:\ISO\nomefile.iso").



In this example the directory shows 3 peripherals: *ram1, mmcblk0p1 e sda1* with on the side the recognized partition and the number of present ISO shown.

Choosing one of the present lines it will appear a list of recognized ISOs.



On the right of every name is shown the type of ISO through 2 letters "XX".

The first letter indicates the type of ISO:
W = Wii ISO
G = GameCube ISO
I = generic ISO

The second letter indicates the origin of the ISO (valid only for the W and G ISOs):
J = Jap
U = Usa
E = Eur
K = Kor

Uploading a ISO:

Once an ISO is selected, you only need to move the WODE-Joystick to the right to upload it.

The loading status of the selected ISO will be shown with the following:

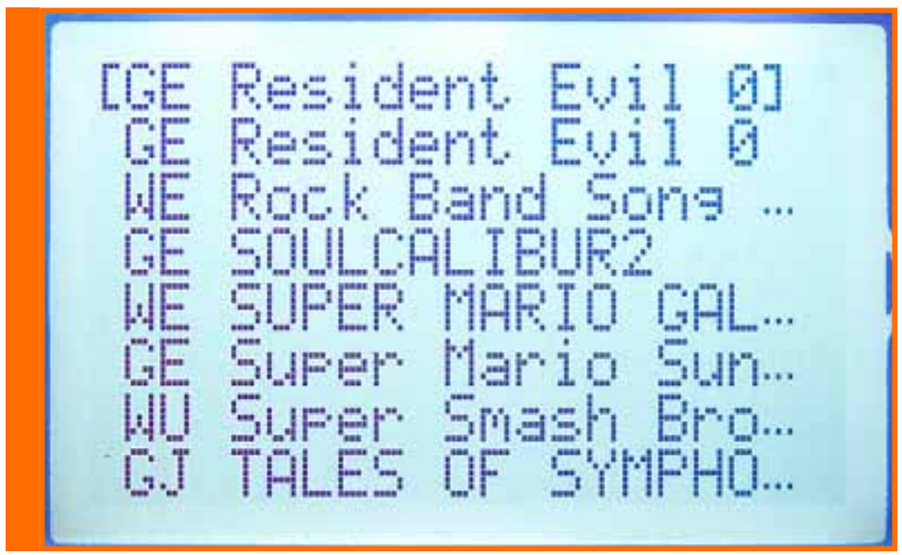
The first line shows the name of the uploaded ISO. The second line shows the number of lectures made. The third line shows the number of Kbyte read.

Remove/eject an ISO:

It is possible to remove a loaded ISO pressing the WII-Eject button.

A message will then appear on the screen to confirm the procedure.

A screen with a list of the previously explored ISOs will then appear,



To explore other devices or partitions simply move the WODE-Joystick to the left.

Flat-WODE menu *(Use of disk Supports Original/backup)*

Select the "FLAT-WODE" option from the main menu and move the cursor to the right.

The following screen will confirm the activation of this mode FLAT-WODE:

When the WODE is in working mode FLAT-WODE, you can use the console with every type of Wii-compatible disk.

Exit from the mode FLAT-WODE

To exit from the FLAT-WODE menu you need only to press the button Wii-Eject:
1 time (if no disk was loaded)
2 times (if the disk was loaded)

Settings menu

All the configuration parameters of the WODE are listed in the Settings MENU.

It's important to remember that every setting's modification has to be saved; after having modified the parameters you will have to save them. Select the right option and move the WODE-Joystick to the right.

The following screen should appear:

Game Patching *sub-menu*

In this menu you can enable or disable different options on the execution mode of ISO and disks.

Region-Patch (ON/OFF)

(ON) - The console will be able to load ISO/disks from every region (JAP, USA, PAL o KOR), without the “original region blocks” which restricts the use of foreign programmes.
(OFF) - The console will only be able to load ISO/disks from the same region (i.e. PAL to PAL, US to US, KOR to KOR).

Updates (NO/YES/OFF)

(NO) - The “Wii system Update” will not search for updates before the execution of an ISO or a disk.
(YES) - The Wii system Update will search for updates before the execution of an ISO or a disk.
(OFF) - The Wii System Update will search for compatible updates and patches from the console’s own region (ex. Console-PAL . only Update pal).

(Note1):
Select the option “Region-patch OFF” in order to visualize the WII system update.

(Note 2):
Some ISO/disks require an updated version of WII SISTEM to run correctly; if your console does not have a valid update you could have problems (ex. Black screen after the starting up of the game icon or block of the ISO/disk during the game session).

Autoboot (ON/OFF)

(ON) - Automatic loading on of ISO/disk when switching on the Wii. With this option activated it is not necessary to confirm the launch of the manual support available from the disk channel.
(OFF) - Autoboot function disabled.

Wii Region *setting*

Configuration setting that shows the origin for which the console is set.

(JAP) - console JAP – NTSC-J
(USA) - console USA - NTSC
(EUR) - console EUR - PAL
(KOR) - console KOR - NTSC

Auto Load *setting*

This configuration setting allows the user to choose the launch mode of the WODE.

(OFF) - Auto Load function disabled.

(FLAT) - when turning the WODE on (FLAT), the Flat-WODE mode will be set automatically.

For the main menu, press one button of the WODE-Joystick and press one time the button Wii-Eject.

(LAST) - At launch, the last executed ISO of the prior session will be uploaded.

(CFG) - At launch, the WODE menu will be automatically loaded in the disk channel in order to control the interface menu from your TV with a GAME-CUBE-Joystick.

+

Save *setting*

The options of the sub-menu “Settings” allow you to save the current settings moving the Wode-Joystick to the right. The following screen will then appear:

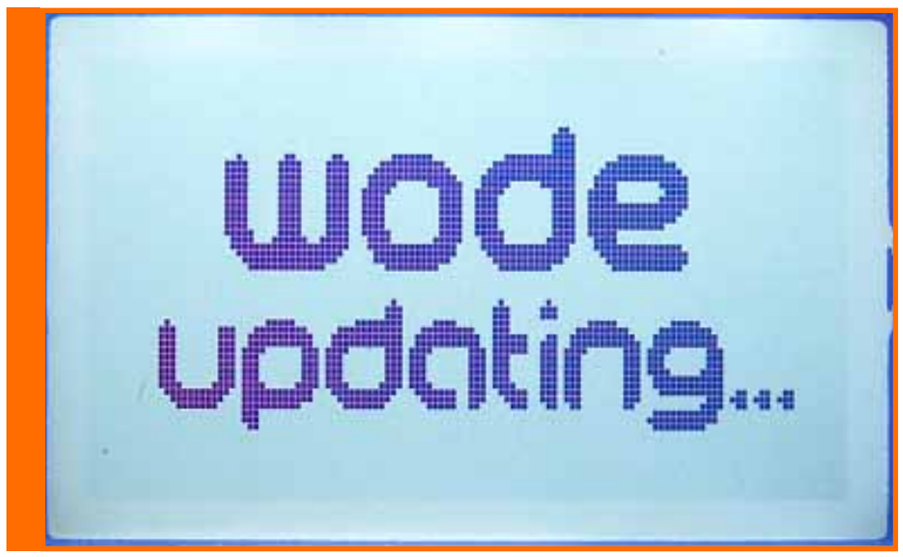
About

In this section you will be able to consult the different versions of the software components of the WODE.

Updating the firmware of the WODE

To update the WODE it is necessary to use a memory card type SD/SDHC (which is not included), formatted with file system FAT/FAT32. Download the last available update of the firmware available from the link *http://www.wodejukebox.com/download.php*, Copy the file “update.bin” from the downloaded archive to the root of the memory card SD/SDHC (es: x:\update.bin). Insert the memory card SD/SDHC in the slot WODE Vertical Stand and turn on theWii console.

When switching on the Wii, the LCD display lights on and the following message will then appear on the screen ”Wode Jukebox Loading” And then “Wode updating” will be diplayed until the update ends.



The system Wode will reboot at the end of the update.

To check the correct execution of the update, just select “about” from the main menu.

(Note1):
Not all of the software components will necessarily be updated every time you execute a firmware update; to receive more information consult the file ” Releases.txt” present in the “updating archives”.

(Note 2):
At startup, the presence of an “update.bin” file on the memory card SD/SDHC of a prior or previously installed version of the firmware of the WODE, will be ignored.

Your ISO and the Wode

Thanks to the Wode, you can now use any mass storage drive, USB or SD/SDHC to upload your ISO and have fun with your WII CONSOLE.

System files supported

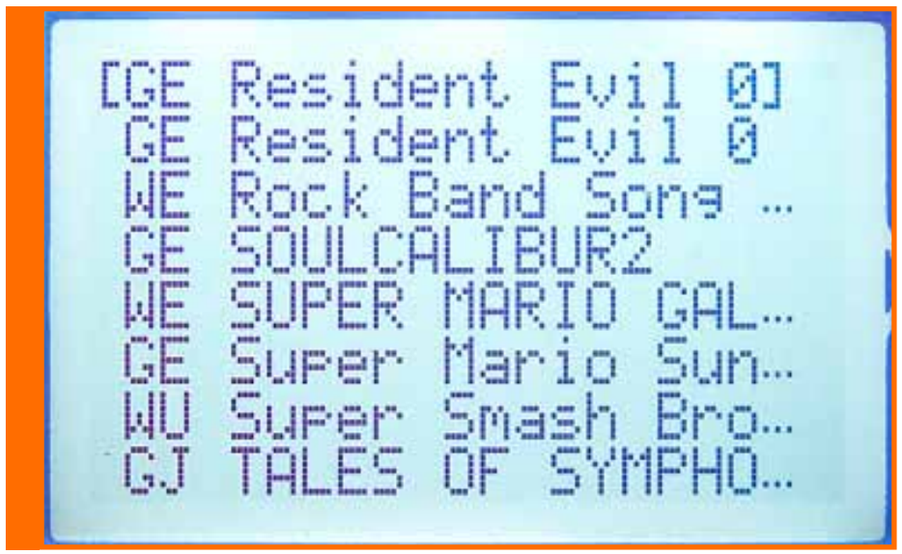
WODE is compatible with the following system files; FAT, FAT32, WBFS (Wii Backup File System), NTFS, EXT3FS, HFS+.

To make the WODE able to access your ISOs, these have to be placed in a folder named “ISO” in the root of your mass support device(ex: “x:\ISO\nomefile.iso”).
In the folder “\ISO you can also have sub-directories up to a maximum of one level of depth (ex: “x:\ISO\Wii-iso\nomefile.iso”).

ISO formats supported

WODE can read ISOs in the following formats: standard-ISO (namefile.iso), WBFS-file (name file.wbfs) e GameCube ISO-ISO (namefile.gcm).

The WODE automatically recognizes all the ISOs present in the mass connected archives and after analysis, it classifies them according to the type of ISO recognized.
In the menu the ISOs are reunited according to the mass archive and near the name of every ISO will be shown the different types of ISOs recognized:



The first letter shows the type of ISO:
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I = generic ISO

The second letter shows the origin of the ISO (valid only for W and G Isos):
J = Jap
U = Usa
E = Eur
K = Kor

Support BCA

WODE supports the management of information request BCA.

Reader Support information BCA in the ISO

The reader of the information BCA of an ISO can be in 2 different modes:

- the first forecasts the presence in the same directory of a file in hexadecimal format with the same name file of the ISO but with .bca extension, containing 64 Bytes (Ex: if the ISO is NSMB.iso the file containing the information BCA has to be NSMB.bca).
- The second mode forecasts the manual insert of 64 Byte information BCA in the ISO at 0x100 directories.

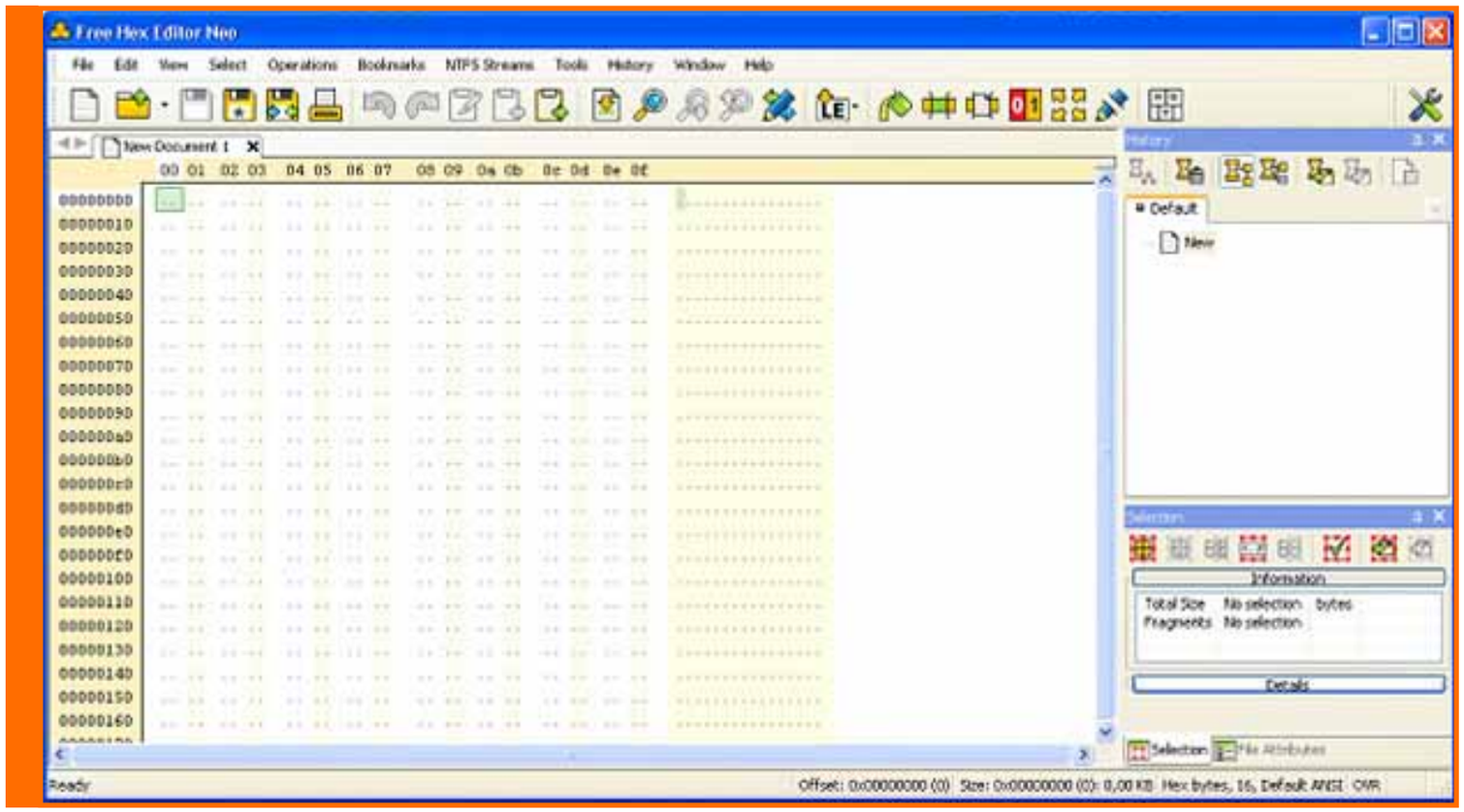
Reader support information in the backup disks

The reading of 64 Byte information of the BCA in the backup disks, takes place on the disk at the offset 0x100.

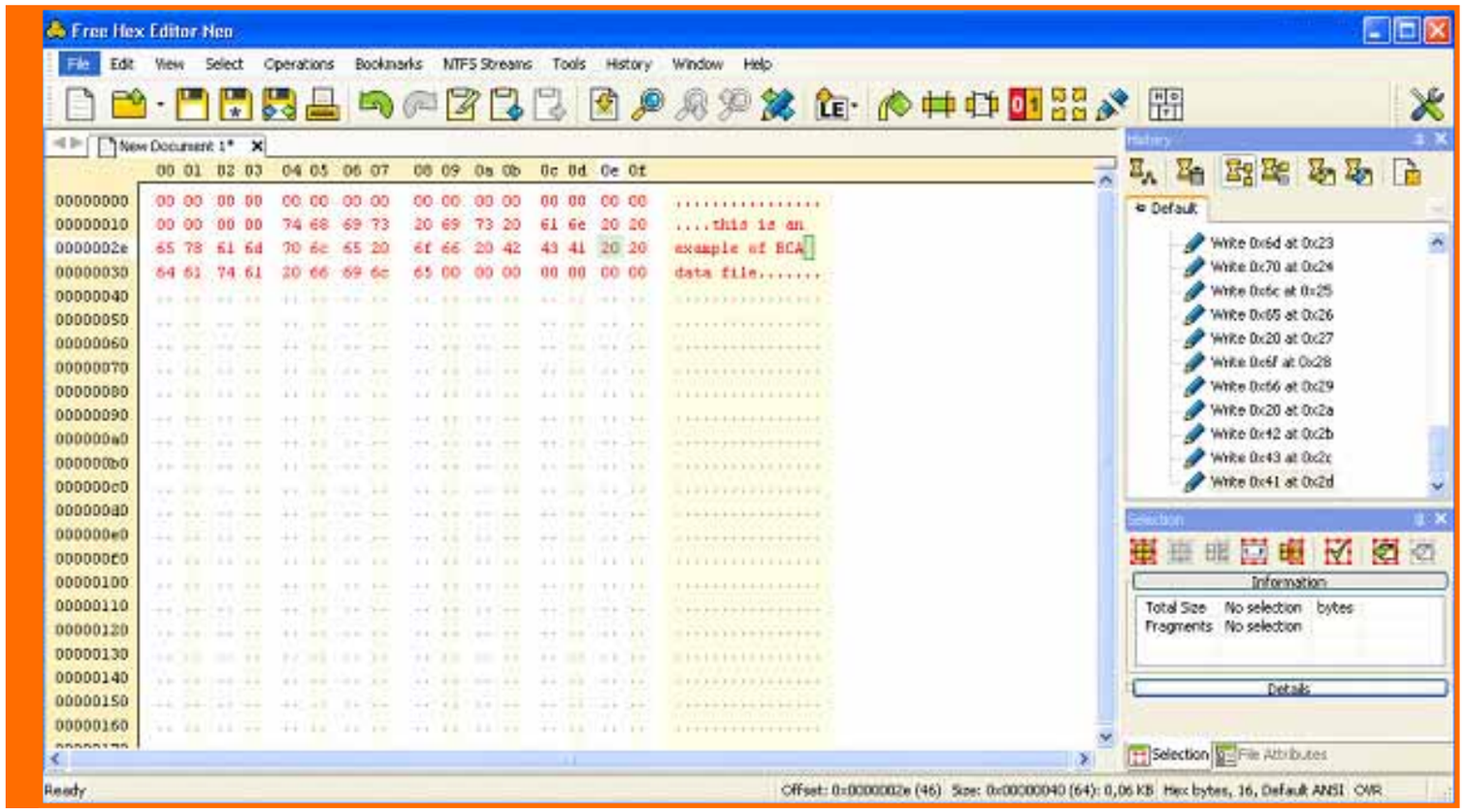
Creating a file.bca

To create a file.bca in hexadecimal format that can be read from the WODE, you need to have an HEX EDITOR Programme (ex. WinHex, UltraEdit, Free Hex Editor Neo...)

Once the programme is running, you only need to create a new file.



At this point insert 64Byte that compose the information BCA in your possession.

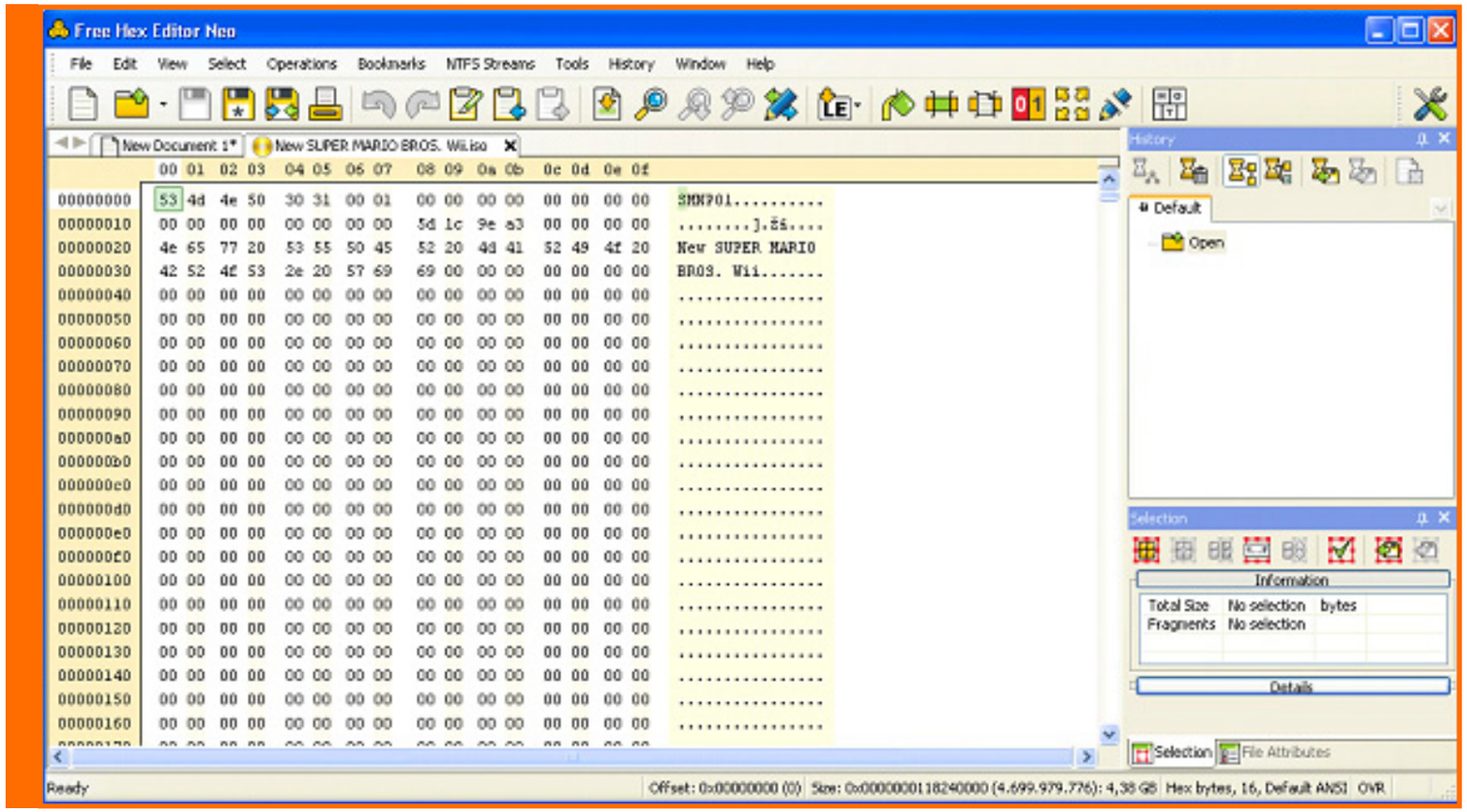

Free Hex Editor Neo
File Edit View Select Operations Bookmarks NTFS Streams Tools History Window Help
New Document 1*
00 01 02 03 04 05 06 07 08 09 0a 0b 0c 0d 0e 0f
00000000 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 ....
00000010 00 00 00 00 74 68 69 73 20 69 73 20 61 6e 20 20 ....this is an
0000002e 65 78 61 6d 70 6c 65 20 6f 66 20 42 43 41 20 20 example of BCA
00000030 64 61 74 61 20 66 69 6c 65 00 00 00 00 00 00 00 data file.....
History
Default
Write 0x6d at 0x23
Write 0x70 at 0x24
Write 0x6c at 0x25
Write 0x65 at 0x26
Write 0x20 at 0x27
Write 0x6f at 0x28
Write 0x66 at 0x29
Write 0x20 at 0x2a
Write 0x42 at 0x2b
Write 0x43 at 0x2c
Write 0x41 at 0x2d
Selection
Information
Total Size No selection bytes
Fragments No selection
Details
Selection
File Attributes
Ready
Offset: 0x0000002e (46) Size: 0x00000040 (64): 0,06 KB Hex bytes, 16, Default ANSI OVR

Now save the file with extension “.bca”.

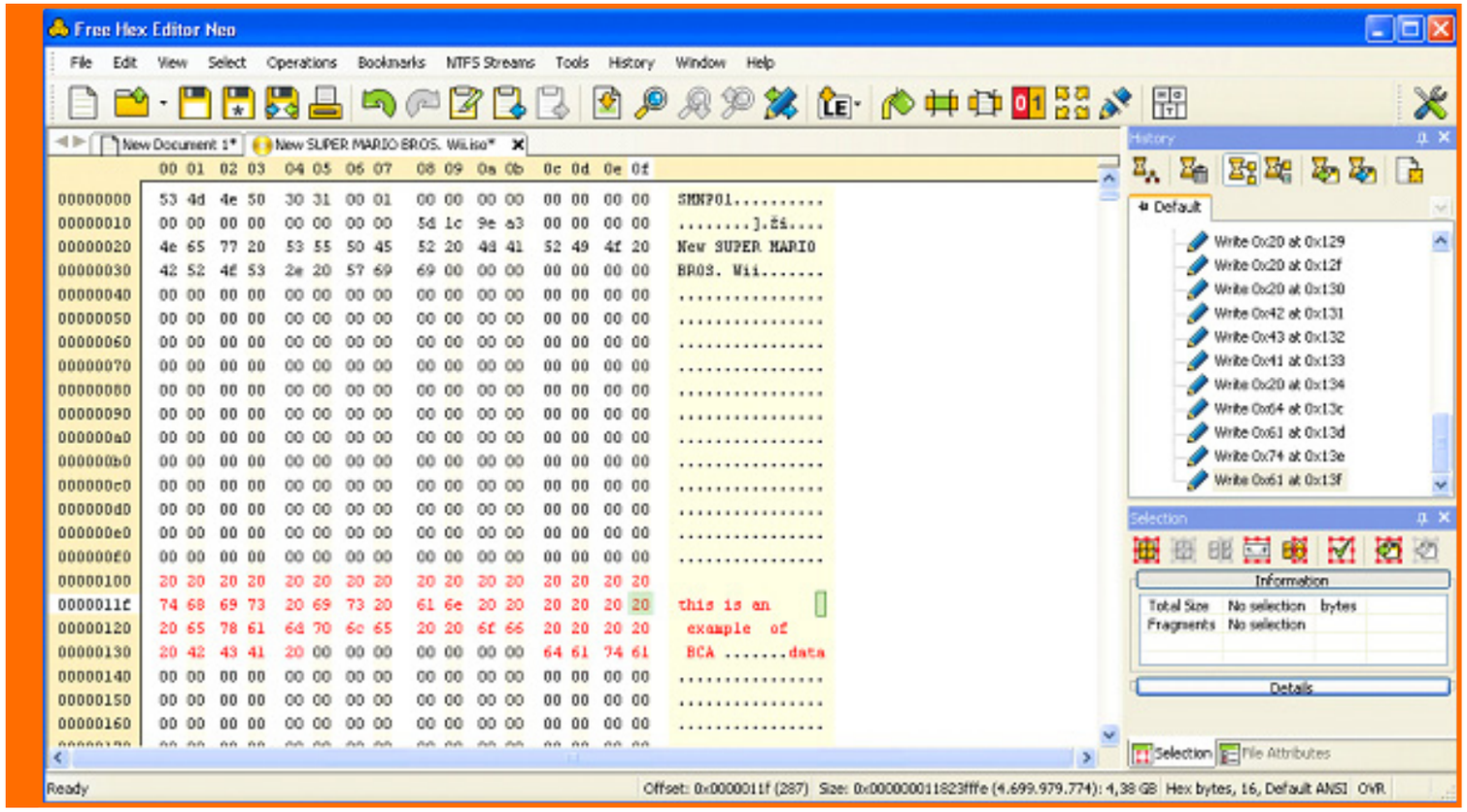
Adding the information BCA to one ISO

To add 64 Byte of information BCA to an ISO it's necessary to use a hexadecimal editor programme (Hex Editor) (ex. WinHex, UltraEdit, Free Hex Editor Neo, ...).

Once the programme is running, open the ISO image file.



Place the cursor on the offset 0x100 and from this point start inserting 64bytes of information BCA in your possess.


Free Hex Editor Neo
File Edit View Select Operations Bookmarks NTFS Streams Tools History Window Help
New Document 1*
New SUPER MARIO BROS. Wii.iso*
00 01 02 03 04 05 06 07 08 09 0a 0b 0c 0d 0e 0f
00000000 53 4d 4e 50 30 31 00 01 00 00 00 00 00 00 00 00 SMNP01..... 00000010 00 00 00 00 00 00 00 00 5d 1c 9e a3 00 00 00 00 ....].ž£.... 00000020 4e 65 77 20 53 55 50 45 52 20 4d 41 52 49 4f 20 New SUPER MARIO 00000030 42 52 4f 53 2e 20 57 69 69 00 00 00 00 00 00 00 BROS. Wii.....
00000100 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20
0000011f 74 68 69 73 20 69 73 20 61 6e 20 20 20 20 20 20 this is an
00000120 20 65 78 61 6d 70 6c 65 20 20 6f 66 20 20 20 20 example of
00000130 20 42 43 41 20 00 00 00 00 00 00 00 64 61 74 61 BCA .....data
History
Default
Write 0x20 at 0x129
Write 0x20 at 0x12f
Write 0x20 at 0x130
Write 0x42 at 0x131
Write 0x43 at 0x132
Write 0x41 at 0x133
Write 0x20 at 0x134
Write 0x64 at 0x13c
Write 0x61 at 0x13d
Write 0x74 at 0x13e
Write 0x61 at 0x13f
Selection
Information
Total Size No selection bytes
Fragments No selection
Details
Selection File Attributes
Ready
Offset: 0x0000011f (287) Size: 0x00000001823fffe (4.699.979.774): 4,38 GB Hex bytes, 16, Default ANSI OVR

Now save the file “image” with these modifications.

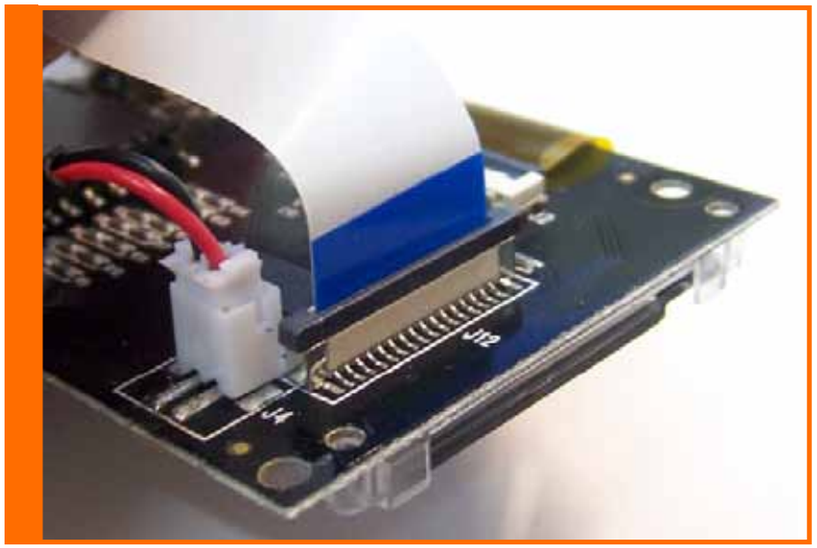
Troubleshooting

The display LCD is not lit

•(Check that the cable USB-power is connected to one of the USB ports present in the back part of the console WII)

The LCD displays an empty screen at start

•(Check that the flat cable that connects the WODE-MAINBOARD (installed inside the console) and the WODE slave board (present in the WODE-vertical stand), is correctly inserted in both connectors. Note: the blue part present on the flat cable has to be placed towards the upside on the WODE main board, while the WHODE-slave board has to be placed towards the external part of the card.)



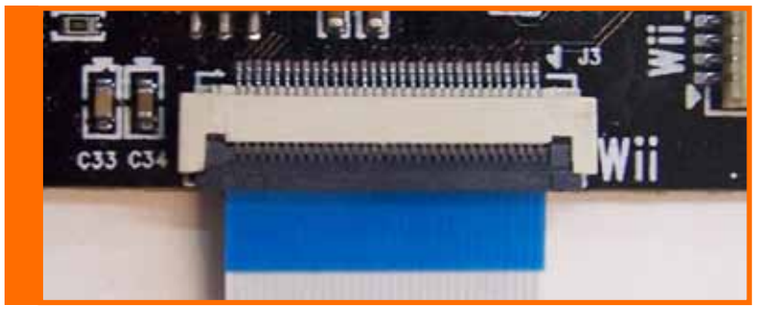
Pic 1

The display LCD remains with a blocked screen, saying "Wode jukebox loading…."

•(Update the WODE with the most recent version of the firmware available on the official website avaible from http://www.wodejukebox.com/download.php)

The drive of the WII is not working

•(Check that the flat cables which connect the WODE main board to the Wii-drive and to the Wii main board are correctly inserted. *Note: the blue side of the flat cable has to be placed on the top of the WODE main board and on the Wii-drive*)



Pic 2

•(Check that the orange supply cables (DVD Power) and white (wii power) are correctly inserted, check both connectors present on the WODE main board in order to verify that no feet inside the connexion has been damaged)

Pic 3

If the Wii console turns off a few seconds after starting it

•(Check that the flat cables that connect the Wode main board to the wii drive and to the wii main board are correctly inserted. *Note. The blue side of the flat cable has to be placed towards the upside on the Wode-main board and on the wii-drive*) *{see (pic 2)}*

•(Check that the orange power supply cables (DVD POWER) and white ones (wii power) are correctly inserted, make a check on both connectors present on the Wode-main board to verify that none of the feet inside the connector has been damaged) *{see (pic 3)}*

Wii power. The led is off when the console is on stand-by

•(Check that the flat cables that connect the Wode main board to the wii drive and to the wii main board are correctly inserted. The blue side of the flat cable has to be placed towards the upside of the Wode-main board and on the wii-drive) *{see (pic 2)}*

If the Wode joystick does not work

•(Check that the flat cable which connects the Wode-main board (installed inside the console) and the Wode slave-board (present in the Wode vertical stand) is correctly inserted in both connectors. Note: the blue part of the flat cable has to be placed on the upside of the Wode main board, while on the Wode slave-board it has to be placed towards the external part of the card) *{see (pic 1)}*

If the Wode does not recognizes a HDD-usb

•(You should check that the flat cable which connects the Wode main-board (installed inside the console) and the Wode slave-board (present in the Wode vertical stand) is correctly inserted in both connectors. *Note: the blue part of the flat cable has to be placed on the upside of the Wode main board, while on the Wode slave board it has to be placed towards the external part of the card*) *{see (pic 1) and (pic 2)}*

•(If you are using a Hdd-USB in 2,5" format, It is recommended to use the USB-cable provided or a USB-cable of high quality, no longer than 40cm)

•(It is important to check the type of system file used on your Hdd as the Wode supports only the following files FAT16/32, NTFS, WBFS, EXT3FS, HFS+)

•(It is recommended to use a HUB with an external power supply to connect the hdd to the Wode)

•(It is recommended to use a USB-cable Y)

If your Wode recognizes your hdd-USB devices but you do not see any ISO on the list

•(set the ISO in a folder named "ISO" in the root of your mass support (ex: "x:\ISO\nomefile.iso"))

•(Inside the folder "\ISO you can find many sub-directories up to a maximum level of one depth (ex: "x:\ISO\Wii-iso\nomefile.iso"))